

We claim:

1. A triggered response composition comprising: one or more polyelectrolytes in contact with an aqueous system that is stable and insoluble in an aqueous system at relatively high ionic strength equivalent to 0.5 M sodium chloride or higher or base concentration of between 1.0 M to 2.5 M or higher and that disperses, disintegrates, dissolves, destabilizes, swells, or combinations thereof; wherein the chemical/physical response of the composition is triggered upon one or more ionic strength or base strength changes to the aqueous system; wherein the polyelectrolyte is one or more alkali soluble polymers comprising: (a) 5-70 weight percent of acidic monomers selected from methacrylic acid, 2-methylpropionic acid or acrylic acid; (b) 30-95 weight percent of one or more non-ionic vinyl monomers selected from butyl acrylate, styrene and methyl methacrylate and optionally, (c) 0.01 to 5 weight percent of one or more metal cross-linking agents.

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2. The triggered response composition according to claim 1 wherein the composition is stable and insoluble in an aqueous system at relatively high ionic strength or base strength and wherein the composition disperses, dissolves, swells or disintegrates in an aqueous system at relatively low ionic strength, base strength, dilution of the aqueous system or when the ionic strength of the aqueous system in contact with the composition is lowered.

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3. A triggered response barrier composition comprising: one or more polyelectrolytes in contact with an aqueous system, wherein the polyelectrolyte is one or more alkali soluble polymers comprising: (a) 5-70 weight percent of acidic monomers selected from methacrylic acid, 2-methylpropionic acid or acrylic acid; (b) 30-95 weight percent of one or more non-ionic vinyl monomers selected from butyl acrylate, styrene and methyl methacrylate and optionally, (c) 0.1 to 5 weight percent of one or more metal cross-linking agents, wherein the barrier composition surrounds one or more active ingredients; wherein the barrier composition is stable and insoluble in an aqueous system at relatively high ionic strength or base strength; wherein

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the barrier exhibits one or more chemical/physical responses selected from dispersing, disintegrating, dissolving, destabilizing, swelling, softening, flowing and combinations thereof; wherein the chemical/physical response of the composition is triggered upon one or more ionic strength or base strength changes to the aqueous system; and wherein the barrier composition is capable of releasing the active ingredients to the aqueous system as a result of the triggered response.

- 5        4. The triggered response barrier composition according to claim 3 wherein the barrier composition is in the form of a film having particle diameters between 5 nm and 3000  $\mu\text{m}$ .
- 10        5. The triggered response barrier composition according to claim 4 wherein the composition is prepared from at least one Morez® polymer having a weight average molecular weight between 1,000 and 20,000 and particle diameters between 5 nm to 300  $\mu\text{m}$ .
- 15        6. A process for triggering the release of one or more active ingredients to an aqueous system comprising the steps of:
  - 20            (a) surrounding one or more active ingredients with an ionic strength or base strength responsive barrier composition, wherein the composition includes one or more one or more alkali soluble polymers comprising:
    - (a) 5-70 weight percent of acidic monomers selected from methacrylic acid, 2-methylpropionic acid or acrylic acid; (b) 30-95 weight percent of one or more non-ionic vinyl monomers selected from butyl acrylate, styrene and methyl methacrylate and optionally, (c) 0.1 to 5 weight percent of one or more metal cross-linking agents the barrier being substantially impermeable to releasing the active ingredients to the aqueous system and remaining insoluble in the aqueous system; and
    - 25            (b) altering the ionic strength or the base strength of the aqueous system;
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wherein the barrier composition disperses, disintegrates, dissolves or swells and becomes substantially permeable, thereby triggering the release of the active ingredients into the aqueous system.

- 5      7. The process according to claim 5 wherein the barrier composition is in the form of a spray dried film prepared from at least one ASE emulsion polymer having a weight average molecular weight between 20,000 and 10,000,000 and particle diameters between 5 nm to 3000  $\mu\text{m}$ .
- 10     8. The process according to claim 5 wherein the barrier composition is in the form of a film and the composition comprises a Morez® polymer having a weight average molecular weight between 1,000 and 20,000 and particle diameters between 5 nm to 300  $\mu\text{m}$ .